

METHOD AND APPARATUS FOR AN ENVIRONMENTALLY HARDENED ETHERNET NETWORK SYSTEM

ABSTRACT OF THE DISCLOSURE

In an environmentally hardened network, a data and power distribution cable is employed in connection with reliable end connectors, high performance physical layer transceivers clocked at a lower rate than is specified and full duplex switched packet transmission techniques between switched nodes in order to extend operational distance between network elements. In a specific embodiment, the data and power distribution cable comprises a data distribution element, a power distribution element, an optional strain distribution element, an optional hollow conduit, and an extra shield and outdoor sheath. The cable may incorporate: 1) a Gel filled outdoor UTP (CAT-5) cable; 2) end connectors of type DB-9 [D-Sub] for connection of the UTP to network equipment; 3) power transmission cable of wire gauge sufficient to carry the power required by network equipment (switches, etc) for the specific segment of the network; and optionally 4) a hollow conduit that permits installation of optical fiber before or after installation of the cable.

Fig. 3

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